

REMARKS

Applicants have amended claims 1, 2, 6, 12, 14, 21, 23, 30, 39-41, 50, 59, 67, 69, 72, 80, 85, 93, 98, 101, and 104 and has added new claims 110-115 as set forth above. No new matter has been added by these amendments. In view of the above amendments and the following remarks, reconsideration of the outstanding office action is respectfully requested.

The Office has objected to claims 69 and 95 asserting the claims appear to be missing a full stop period at the end of the claims. Accordingly, Applicants have amended claims 69 and 95 to add a period to the end of the claims.

The Office has rejected claims 1, 59 and 98 under 35 U.S.C. 101 asserting the claimed invention is directed to an abstract idea that does not result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory material under 35 U.S.C. 101. More specifically, the Office asserts Applicant's amendments to claims 1 and 59 to output one or more of the identified, viable remanufacturing options, allows for interpretations that do not produce a useful and tangible result and suggest amending the claims to recite displaying the remanufacturing options. Applicants note with appreciation the Office's suggestion and have amended claims 1, 58, and 98 to cancel "outputting" and recite displaying as set forth above. As set forth on page 20 of the Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility, the focus on determining whether a claim provides a practical application is whether the final result achieved by the claimed invention is useful, tangible, and concrete. Claims 1, 59, and 98 as set forth above provide a display of the identified and viable remanufacturing options or remanufacturing option with the highest score for the existing apparatus which is clearly useful and tangible and also is concrete because the process would produce the substantially the same result again. Accordingly, in view of the foregoing amendments and remarks, the Office is respectfully requested to reconsider and withdraw this rejection.

The Office has rejected claims 21 and 101 under 35 U.S.C. 101 asserting that it appears the steps do not require hardware and are at best directed to an arrangement of software, and are therefore not tangible. Accordingly, Applicants have amended claims 21 and 101 to recite at least one computing device as set forth above to recite hardware as

required by the Office. Accordingly, in view of the foregoing amendments and remarks, the Office is respectfully requested to reconsider and withdraw this rejection.

The Office has rejected claims 1-2, 4, 7, 11-18, 20-23, 26, 29-36, 38-40, 42, 45, 49-56, 58, 65-67, 70-71, 78-80, 83-84, 91-93, 96-97 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,581,045 to Watson (Watson) in view of Onodera, Katsuhige; "Effective Techniques of FMEA at Each Life-Cycle Stage", 1997, Proceedings of the Annual Reliability and Maintainability Symposium (Onodera), further in view of U.S. Patent No. 5,877,961 to Moore (Moore); claims 3 and 41 under 35 U.S.C. 103(a) as being unpatentable over Watson in view of Onodera, further in view of Moore, and further in view of common knowledge in the art; Claims 5 - 6, 24 - 25 and 43 - 44 under 35 U.S.C. 103(a) as being unpatentable over Watson in view of Onodera, further in view of Moore and further in view of MIL-STD-1629A, "Military Standard procedures for performing a failure mode, effects and criticality analysis", 24 November 1980 (MilStd1629A); claims 8-9, 27-28 and 46-47 under 35 U.S.C. 103(a) as being unpatentable over Watson in view of Onodera, further in view of Moore and, further in view of U.S. Patent No. 6,052,631 to Busch (Busch); claims 10 and 48 under 35 U.S.C. 103(a) as being unpatentable over Watson in view of Onodera, further in view of Moore, further in view of Busch and further in view of common knowledge in the art; claims 107-109 under 35 U.S.C. 103(a) as being unpatentable over Watson in view of Onodera, further in view of Moore, further in view of U.S. Patent No. 6,397,992 to Partridge (Partridge); claims 19, 37 and 57 under 35 U.S.C. 103(a) as being unpatentable over Watson in view of Onodera, further in view of Moore and further in view of U.S. Patent No. 6,151,565 to Loble (Loble); claims 59-62, 72-75 and 85-88 under 35 U.S.C. 103(a) as being unpatentable over Watson in view of Moore; claims 63-64, 76-77 and 89-90 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watson in view of Moore and further in view of Onodera; claims 68-69, 81-82 and 94-95 under 35 U.S.C. 103(a) as being unpatentable over Watson in view of Moore and further in view of MilStd1629A;.

Watson, Onodera, Moore, MilStd1629A, Busch, and Loble, alone or in combination, do not disclose or suggest, "assessing a plurality of remanufacturing options for each of the items based on the determined overall condition of the items regardless of a condition of each of the items" as recited in claims 1 and 39, "a remanufacturing assessment processing system in the at least one computing device that assesses a plurality of remanufacturing options for each of the items based on the determined overall condition of

the items regardless of a condition of each of the items" as recited in claim 21, "assessing a plurality of remanufacturing options for each of the items regardless of the condition of each of the items" as recited in claims 59 and 85 and "a remanufacturing assessment system that assesses a plurality of remanufacturing options for each of the items regardless of the condition of each of the items" as recited in claim 72.

The Office has asserted, "Watson appears to evaluate and assess each item when an operator inspects an asset component. The operator obviously inspects all items of the component regardless of the condition of the items, both defective and non-defective, and at that time, they are obviously evaluated as part of a remanufacturing assessment procedure." However, the disclosure in Watson does not support the Office's assertion. The Office's attention is respectfully directed to col. 5, line 65 to col. 6, line 8, "To rate the condition of the asset component, the asset management system 100 utilizes a process of inspection of the asset component to determine various types of problems or "defects" associated with the component. In addition, levels of severity, indicative of the "extremeness" of the problem, are also determined. Further, the inspection process determines the extent of the size of the problem, relative to the overall size of the asset component. The foregoing data, in addition to other data generic to the asset component, is utilized with empirical information to determine serviceability fore-casts related to the asset component" (Emphasis added). Accordingly, once the defects are determined, Watson only discloses evaluating based on those determined "defects" and generic data, i.e. information universally or generically applicable to that type of asset component and thus not related to the condition of that asset component. By way of example, further support that Watson is focused on only assessing the repair options with respect to the defects can be found at col. 7, lines 16-19; col. 8, lines 32-34 and 47-51; col. 18, lines 18-30; and col. 20, lines 45-50. Like Watson, the other cited references do not teach or suggest assessing a plurality of remanufacturing options for each of the items regardless of a condition of each of the items as claimed.

Thus, the present invention provides a much more robust, accurate and easy to use method and system for assessing the viability of a variety of remanufacturing options for an apparatus, such as a ship, vehicle, airplane, engine, copier, or other machine or system. An assessment for remanufacturability using the present invention has a higher degree of

accuracy and/or reliability than prior assessment techniques, such as the one disclosed in Watson which is focused on defects.

Accordingly, in view of the foregoing amendments and remarks, the Office is respectfully requested to reconsider and withdraw the rejection of claims 1, 21, 39, 59, 72, and 85. Since claims 2-20 depend from and contain the limitations of claim 1, claims 22-38 depend from and contain the limitations of claim 21, claims 40-58 depend from and contain the limitations of claim 39, claims 60-71 depend from and contain the limitations of claim 59, claims 73-84 depend from and contain the limitations of claim 72, and claims 86-97 depend from and contain the limitations of claim 85, they are distinguishable over the cited references and are patentable in the same manner as claims 1, 21, 39, 59, 72, and 85.

Additionally, Watson, Onodera, Moore, MilStd1629A, Busch, and Loble, alone or in combination, do not disclose or suggest, “researching each of the items to obtain at least a portion of the data” as recited in claim 3, “wherein at least a portion of the obtained data is obtained by researching the items” as recited in claim 23, or “researching each of the items to obtain at least a portion of the data” as recited in claim 41. The Office has taken Official Notice that it was old and well known to the ordinary artisan at the time of invention to research data for an item and that the motivation to combine would have been the need to obtain data needed to evaluate alternatives and make a decision regarding remanufacturing options.

Applicants respectfully traverse this Official Notice taken by the Office and respectfully request the Office to provide specific factual findings predicated to support the Office’s conclusion of common knowledge. See *Soli*, 317 F.2d at 946, 37 USPQ at 801; *Chevenard*, 139 F.2d at 713, 60 USPQ at 241. Applicants acknowledge that generic researching of data is shown, however Applicants disagree that researching for obtained data to be used in determining an overall condition of items that is used for assessing a plurality of remanufacturing options is taught or suggested. Accordingly, the Office is respectfully requested to provide the specific factual findings for the claimed limitation and motivation to combine or to withdraw these rejections.

Further, Watson, Onodera, Moore, MilStd1629A, Busch, and Loble, alone or in combination, do not disclose or suggest, “determining what types of the obtained data need to be collected” as recited in claim 4, “a data determination system that determines what

types of the obtained data need to be obtained” as recited in claim 23, or “determining what types of the obtained data need to be collected” as recited in claim as recited in claim 42. The Office asserts that Watson discloses determining what types of the obtained data need to be collected at column 19, line 21 – 35 and that it would have been obvious that data, such as year constructed would have been researched, and the computer prompts for the required information to be collected. However, contrary to the Office’s assertions column 19, lines 21-35 along with the other “prompts” disclosed in cols. 19 and 20 in Watson do not teach or suggest determining what types of data need to be collected. The portion cited by the Office in Watson simply states, “The central processing unit 106 can be utilized to "prompt" for such information (through a digital display device or similar visual display)”, however prompting is simply inciting a request and there is no teaching or suggestion in Watson of any determining of what types of data need to be collected. Like Watson, the other cited references do not teach or suggest the claimed determining. Accordingly, in view of the foregoing amendments and remarks, the Office is respectfully requested to reconsider and withdraw the rejection of claims 4, 23, and 42.

Even further, Watson, Onodera, Moore, MilStd1629A, Busch, and Loble, alone or in combination, do not disclose or suggest, “wherein the effects comprise a local effect, a secondary effect, and an ultimate effect” as recited in claims 12, 30, 50, 67, 80, and 93. The Office has acknowledged that Watson does not teach the effects comprise at least one of a local effect, a secondary effect, and an ultimate effect, but asserts Onodera teaches the effects comprise a local effect and an ultimate effect at page 52, section 4.1, second paragraph, items a and e; and page 52, table 1, columns 1 and 5. As amended, these claims now require a local effect, a secondary effect, and an ultimate effect and has the Office has acknowledged, neither Watson nor Onodera disclose the claimed secondary effect. Similarly, the other cited references do not disclose or suggest the secondary effect in determining risk priority for assessing remanufacturability as claimed. Accordingly, in view of the foregoing amendments and remarks, the Office is respectfully requested to reconsider and withdraw the rejection of 12, 30, 50, 67, 80, and 93.

The Office has also rejected claims 98, 100, 101, 103, 104 and 106 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watson in view of Loble and claims 99, 102 and 105 under 35 U.S.C. 103(a) as being unpatentable over Watson and

Lobley, in view of Eckenrode, Robert T.; "Weighting multiple criteria", 1965, Management Science, Volume 12, Number 3 (Eckenrode).

Watson, Lobley, and Eckenrode, alone or in combination, do not disclose or suggest, "determining a measurement criteria score for each of the plurality of remanufacturing options based on the determined weight and the determined rating" as recited in claims 98 and 104 or "determining a measurement criteria score for each of the plurality of remanufacturing options based on the determined weight and the determined rating" as recited in claim 101.

The Office has asserted that a decision support system provides a method for determining the most preferred alternative of several possible alternatives, which would have been recognized by an ordinary artisan as a valuable tool to improve decision making and make the most efficient and effective decision. Additionally, the Office asserts the recited reference states the invention mitigates the disadvantages, referred to in the prior section of the patent, such as not selecting the best alternative, not providing guidance as to which alternative is better suited, not providing information as to why an alternative is better suited, and especially, that it does provide improved indication of the appropriate alternative. The Office asserts these are significant benefits that would have been recognized by the ordinary artisan.

As the Office has acknowledged, Watson does not teach: determining a weight for each of a plurality of measurement criteria; determining a rating for each of the plurality of remanufacturing options for each of the plurality of measurement criteria; determining a measurement criteria score for each of the plurality of remanufacturing options based on the determined weight and the determined rating; or determining a total score for each of the remanufacturing options based on the determined measurement criteria scores for each of the plurality of remanufacturing options, wherein an optimal one of the remanufacturing options has the highest score. Contrary to the Office's assertions there is no motivation to combine Watson with Lobley as suggested by the Office. The Office has cited to col. 1, lines 19-36 in Lobley which states:

Decision support systems are well known. Typically, such systems are implemented on general or special purpose computer hardware and employ a multi criteria model including a system of weights for various factors of interest to the decision. When an alternative (possible decision) is

considered, an appropriate score is assigned to each factor in the model, the score representing how well the alternative being considered meets the criteria defined for the respective factor. When all factors have been scored for an alternative, a weighted average is calculated for that alternative. When weighted averages have been calculated for each alternative, the weighted averages of the alternatives are compared and the decision support system typically presents the alternatives ranked by their weighted averages, with the alternative with the highest weighted average being indicated as the most preferred.

and to col. 2, lines 28-35 in Loble which states:

It is an object of the present invention to provide a novel decision support system and method which obviates or mitigates at least some of the above-mentioned disadvantages of the prior art. It is a further object of the present invention to provide a novel article of manufacture which obviates or mitigates at least one of the above-mentioned disadvantages of the prior art

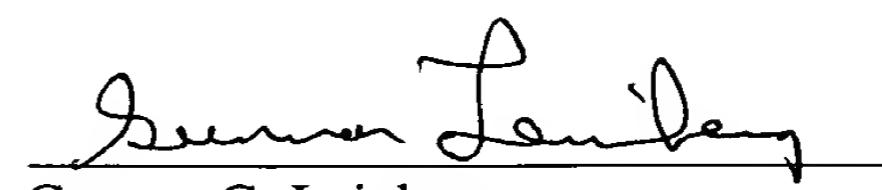
Neither of these passages in Loble makes any mention or suggestion of use of a decision support system for remanufacturing options or even for maintenance options and as noted in Applicants previous response the latter paragraph is merely a generic boilerplate paragraph which provides no meaningful information. Additionally, Applicants have conducted a word search throughout the entire text of Loble and there is no mention or suggestion of using the decision support system for remanufacturing options or even for maintenance options. As a result, the Office has not provided any support for a motivation to one of ordinary skill in the art to take the particular aspects of the disclosure in Loble and combine it in the asset management system taught by Watson. It is only through impermissible hindsight after reviewing the above-identified patent application, that the Office is now trying to combine the teachings of these references.

Accordingly, in view of the foregoing remarks, the Office is respectfully requested to reconsider and withdraw the rejection of claims 98, 101, and 104. Since claims 99 and 100 depend from and contain the limitations of claim 98, claims 102 and 103 depend from and contain the limitations of claim 101, and claims 105 and 106 depend from and contain the limitations of claim 104, they are distinguishable over the cited references and are patentable in the same manner as claims 98, 101, and 104.

In view of all of the foregoing, Applicants submit that this case is in condition for allowance and such allowance is earnestly solicited.

Respectfully submitted,

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